

# **Arlington Conservation Commission**

**Date:** Thursday, February 4, 2021

**Time:** 7:30 PM

Location: Conducted by Remote Participation

Please note: The listing of matters are those reasonably anticipated which may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may be brought up for discussion to the extent permitted by law.

# **Agenda**

#### Administrative

a. In accordance with the Governor's Order Suspending Certain Provisions of the Open Meeting Law, G. L. c. 30A, § 20 relating to the COVID-19 emergency, the February 4, 2021 public meeting of the Arlington Conservation Commission shall be physically closed to the public to avoid group congregation. The meeting shall instead be held virtually using Zoom.

Topic: Conservation Commission Meeting

Time: February 4, 2021 07:30 PM Eastern Time (US and Canada)

#### Register in advance for this meeting:

https://town-arlington-ma-us.zoom.us/meeting/register/tJwkf--hpj4qH9elxwl8AbZJ9hrWL9pX3gmh

Members of the public are strongly encouraged to send written comment regarding any of the hearings listed below to Conservation Agent Emily Sullivan at esullivan@town.arlington.ma.us.

Please read Governor Baker's Executive Order Suspending Certain Provision of Open Meeting Law for more information regarding virtual public hearings and meetings: https://www.mass.gov/doc/open-meeting-law-order-march-12- 2020/download

- b. Review draft 01/21/2021 minutes.
- c. Review 2020 goals and determine 2021 goals.
- d. Review draft annual report and financial budget spreadsheet.
- e. Review draft conditions for Thorndike Place.

#### 2. Discussion

a. Regulations Update:Full Draft



# Review draft 01/21/2021 minutes

**Summary:** Review draft 01/21/2021 minutes.



# **Commission Goals**

Summary:

Review 2020 goals and determine 2021 goals.

**ATTACHMENTS:** 

Type File Name Description

Reference Material Goals\_and\_Actions\_2020\_revised\_for\_2021.pdf 2020 and 2021 Goals



# TOWN OF ARLINGTON

730 Massachusetts Ave. Arlington, MA 02476 781-316-3012

#### ARLINGTON CONSERVATION COMMISSION

# **Goals and Actions Identified for 2020**

Yellow-highlighted goals/actions were prioritized for 2020 based on Conservation Commission meetings in Jan/Feb 2020.

Blue text indicates whether or not it was achieved and clarifications.

### 2021 Goals Outlined in the 2020 Annual Report

- A. Continue to strengthen and update regulations for permitting efficiency and process clarity with the specific goal to update the local Wetlands Regulations in early 2021.
- B. Improve the stewardship of conservation lands through better coordinated land management.
- C. Improve communication and educational outreach to residents in resource areas.
- D. Continue to look for opportunities to work collaboratively with neighboring towns and allied organizations towards protection of wetland resources.
- 1. Strengthen and update regulations for performance standards, permitting efficiency, and process clarity
  - Revise the Arlington Regulations for Wetlands Protection
     Began in 2020 expected completion and vote early 2021
     Commission needs to coordinate public review of the revision and disseminate it to other boards/committees/departments for review prior to vote
  - Add administrative project/general project process to regulations
     Done added to revised regulations expected to be completed early 2021
  - Add a consent agenda to meetings
  - Have Commission review/approve special conditions and OOCs for permits prior to permit issuance

Done – this has been enacted as standard practice for OOCs

- 2. Host additional collaborative community clean-up and educational events
  - Devote 1-2 hours of a meeting to a wetland topic training and invite an expert to give the training
     Not Accomplished
  - Target trainings to frequent issues in Town
  - Coordinate with schools for project ideas and class curriculums
  - Open space clean-ups

Not Accomplished due to COVID-19

Commission likely won't be able to host clean-ups until the summer or later per Town policies

- 3. Improve the stewardship of conservation lands and other town open spaces
  - Identify maintenance needs/gaps for ACC-managed properties and secure town resources for implementation

In progress - Planning and Community Development Department submitted CPA Grant application for a Public Land Management Pan

- Open space clean-ups
- Tree planting
- Cooke's Hollow
- Vegetative buffers (C. Garnett's project)
   In progress
- Floating wetlands pilot project
- Coordinate regional management of Upper/Lower Mystic Lakes
   In progress Have reached out to both the Winchester and Medford Conservation Agents, received all of Winchester's permits and waiting for Medford's. General interest from Winchester and Medford in coordinating Mystic Lake treatments but need to come to an agreed process for coordination with other municipalities.
- Promote low-impact landscaping, connect with groups like Garden Club and Sustainable Arlington
- Promote natural resource benefits
- Invasive removal
- Certify vernal pools
- Coordinate regional management of Upper/Lower Mystic Lakes
- 4. Improve communication and educational outreach to residents in resource areas
  - Create a floodplain guidance document / resource area document
     In progress Draft document created but Commission asked Agent to find guidance from floodplain trainings. All 2020 trainings cancelled due to COVID-19 but will look into 2021 trainings.
  - Write educational articles for the Advocate and online
  - Add tips and FAQ to webpage
  - Include open forum for general questions on meeting agendas
  - Create a list of all properties that fall under Commission jurisdiction and proactively send mailings about permitting procedures
  - Attend MACC and AMWS workshops

#### 5. Other

- Allow agenda time during a meeting at least once per quarter to discuss how processes are going, recommendations for improvements/changes, needs for education, and to evaluate how the Commission is progressing on 2020 goals
- Include open forum for general questions on meeting agendas
- Create a master permit tracking list
   Done need to add a 2021 goal to update and review this list on a regular basis.
   This list is updated with every permit application we receive.
- Schedule site visits for substantive projects prior to first hearing
- Encourage the Conservation Agent to provide recommendations on applications during hearing
- Have Commissioners submit questions/comments prior to first hearing
- Invite other town committees (Park & Recreation, DPW, etc.) to meetings to discuss areas of overlap and to improve permit coordination
- Create a permitting guide with ZBA, Inspectional Services, ARB, etc.

•	Encourage each Commission member to lead at least one special project during the year or act as liaison to an existing project/effort.



# Water Bodies Working Group Update

# Summary:

Review draft annual report and financial budget spreadsheet.

# ATTACHMENTS:

	Type	File Name	Description
D	Reference Material	Draft_Water_Bodies_2020_Annual_Report_ACC_Review.pdf	WBWG 2020 Annual Report
D	Reference Material	WBWGAccounting_revised_2021-01- 28_ACC_Review_overview.pdf	WBWG Budget Overview
D	Reference Material	WBWGAccounting_revised_2021-01- 28_ACC_Review_details.pdf	WBWG Budget Details

# 2020 Water Bodies Assessment and Recommendation Report Arlington Conservation Commission February 2021 – DRAFT 1/29/21

The Arlington Conservation Commission (ACC), through its Water Bodies Working Group (WBWG), continued the assessment of fourteen water bodies in the Town of Arlington, including five lakes and ponds and nine streams. A majority of these are negatively impacted by polluted runoff and stormwater discharges due to the highly urban nature of Arlington and surrounding towns. Most of these water bodies also have excessive aquatic invasive plants that degrade water quality, impede recreational use, and degrade aesthetics. In determining which water bodies could benefit from management measures using Town funding, the WBWG took a triage-based approach:

- 1. Water bodies that are in generally good shape, do not need much help, or whose issues are being addressed by other agencies or funding sources, e.g., Upper & Lower Mystic Lakes and Mystic River
- 2. Water bodies with some issues that could benefit from directed intervention, e.g. Spy Pond, Arlington Reservoir, Hills Pond, McClennen Park Detention Ponds (Reeds Brook)
- 3. Water bodies that are in poor shape with many issues that would need major efforts and additional funding to improve, e.g. Mill Brook and Alewife Brook.

Though the chemical treatments of several main water bodies must continue for the coming year to control aquatic invasives and harmful algal blooms, the WBWG is focused on obtaining the appropriate data to develop comprehensive management plans for Spy Pond, Arlington Reservoir, and Hills Pond. Our goal is to develop management plans where chemical use is only one step along with strategies to reduce inputs of nutrients to the water bodies, methods to manually remove aquatic plants, and techniques to prevent further spread and development of aquatic invasives.

Based on the 2020 analysis, the WBWG has identified the following priority locations for 2021.

**Arlington Reservoir** – A Town-owned water body in Arlington and Lexington with aquatic invasive water chestnuts that form dense, impenetrable mats at the water's surface, which impair public use and water quality. These plants have been harvested mechanically every summer for many years and were again in 2020. For several years, the Mystic River Watershed Association (MyRWA) has been organizing hand harvesting events in the shallower areas but that was cancelled in 2020 because of COVID-19.

This water body was assessed as part of the Reservoir Master Plan project supported with CPA funding. One recommendation of that report was that the water chestnuts be harvested earlier than they have been in recent years in order to reduce seed production. In 2020 a study was conducted to evaluate the reservoir and its management practices. That study found:

Based on the data collected and observations during the survey, Arlington Reservoir is a shallow, eutrophic waterbody that has overall dense growth of aquatic vegetation. Of the five invasive species observed, three are very aggressive in their growth habits — water chestnut, curly-leaf pondweed, and Eurasian watermilfoil. As a result, there can be a significant decline in native vegetation and water quality. Management of these three species (and other non-native species) can improve water quality, recreational use, wildlife habitat, and aesthetic value.

The ACC is reviewing options for management of the Reservoir and may recommend additional actions beyond mechanical water chestnut harvesting.

There is also an on-going master plan for the Reservoir that primarily affects the land areas, but does include some bank restoration.

Hill's Pond – A small pond in the heavily used Menotomy Rocks Park with water quality and invasive plant problems. The Conservation Commission recommends continuing aeration, strictly limiting polluting activities near the pond or in areas that drain into the pond, maintaining a vegetated buffer strip around the pond four to ten feet wide of un-mowed grass or natural vegetation, and low-dose chemical treatments with aquatic herbicides to control algae and other detrimental water plants. Monthly site visits with proactive treatments in 2020 proved successful in reducing invasives, based on the annual report by the vendor, SOLitude. There was some algae growth that required treatment, but no harmful algal bloom (HAB) developed in 2020.

Mill Brook – The poor water quality of Mill Brook increased marginally in 2019 from D to a D+ (EPA/MyRWA 2019 Water Quality Report: https://mysticriver.org/epa-grade/). Mill Brook's poor water quality is primarily due to stormwater runoff; however, there may be illicit discharges to the brook from surrounding properties. The brook and its adjacent shore provide valuable wildlife habitat and opportunities for nature views.

The Mystic River Watershed Association (MyRWA) received CPA funds for improving public access,

improving water quality, and reducing floodwaters along Mill Brook near Wellington Park.

In 2019, park construction included building more flood storage capacity and removing invasive terrestrial plants The next phase of work, Phase III, will improve park amenities, improve stormwater quality, remove more invasive terrestrial plants, and create more robust native vegetated buffers along

Judy Record Fund grant.

NATURAL LOG AND BOULDER EXPLORATION AREA WOODLAND SEED MIX, TYP. SHADE TREE PLANTING, TYP. SHRUB PLANTING, TYP. JNDERSTORY TREE LANDSCAPE BOULDER, TYP. HERBACEOUS PERENNIAL PLANTING, TYP. BLACK LOCUST LOG BLACK LOCUST LOG SCRAMBLE LAND FORM MOUNDS LANDSCAPE BOULDER, TYP. WOODLAND SEED MIX. TYP LAND FORM MOUNDS STUMP TALL TURF SEED CURVED WOOD RUSTIC BENCH MIX, TYP. (2' SHOULDER) POROUS BITUMINOUS CONCRETE PLANTING ALONG LAND FORM MOUNDS MWRA SEWER

the brook's bank. Phase III construc Phase III proposes to add native plantings and informal play components along Mill Book in Wellington Park.

McClennen Park Detention Ponds on Reeds Brook – These stormwater detention ponds were created during the capping/closure of the landfill in this area, formerly called "Arlington Summer Street Landfill," which was officially closed in 2006 with no further monitoring required. Technical contractor Woods Hole Group (WHG) submitted a memorandum report in 2019 summarizing their evaluation, based on site visits and sampling and analysis of surface water and sediment performed in 2018. WHG concluded that the observed iron flocculation at Reeds Brook does not constitute a condition of "readily apparent harm" (MassDEP terminology) to the environment of the wetland resource area. However, some sediment data

exceeded MassDEP sediment screening level benchmarks and several surface water samples exceeded the National Recommended Water Quality Criteria (NRWQC) for iron.

The ACC completed its goal in 2019 to investigate potential harm to the resource area of the iron flocculation at these detention ponds. Based on the findings, the WBWG concluded that there is no readily apparent harm to the resource area. However, given the findings of several metal concentrations that exceed screening levels, the ACC reported these findings in 2019 to the MassDEP Office of Solid Waste (OSW) and requested guidance or recommendations on further actions the Town might take. The WBWG has received no guidance from OSW in 2020. Therefore, since the 2019 report concluded that there is no "readily apparent harm" to the resource area, no additional investigations are planned at this time. The Town can decide if further investigations are warranted based on aesthetic values, as appropriate.

In 2020 the ACC in conjunction with Park and Recreation Commission and the Department of Public Works established a vegetated buffer strip around the ponds to control runoff and to improve wildlife habitat.

**Spy Pond** – One of Arlington's most heavily used open spaces for recreation, Spy Pond has an invasive plant problem within and around the pond. The surrounding managed landscape contributes to nutrient loading and low oxygen levels. Left untreated, invasive plants impair recreational use.

From 2017 to 2019, Spy Pond had problems with excessive aquatic vegetation despite yearly spot treatments. For 2020, the Working Group and Spy Pond Committee selected Sonar, a systemic herbicide that is effective in very low concentrations (parts per billion). Spy Pond was free of aquatic vegetation for most of the summer. The restrictions due to Covid 19 encouraged increase use of Spy Pond by sailboat, rowboat, kayak, fishing pole, and standup board. Spy Pond saw eagles, ospreys, cormorants, multiple mallard families, even a river otter. There was no skating or ice fishing for the first time in memory.

The Spy Pond Committee produced an aquatic history of Spy Pond. It documents a 100-year problem with excessive nutrients, and a 60-year problem with excessive vegetation due to rooted, aquatic plants. The plan for 2021 is multiple, low-dose treatments. With less vegetation and less decayed biomass, algae will hopefully stay at the bottom of Spy Pond. The Working Group will seek scientific oversight of Spy Pond to improve its management.

The Conservation Commission approved MassDOT's plan to dredge the sandbar in the northwest corner of Spy Pond. When completed next year, it will end a 25-year effort of the Spy Pond Committee.

Mystic River and Alewife Brook – The Mystic River retained a good EPA/MyRWA water quality rating of A-as in 2019. The Alewife Brook's poor water quality remained at D in 2019 (EPA/MyRWA 2019 Water Quality Report: <a href="https://mysticriver.org/epa-grade/">https://mysticriver.org/epa-grade/</a>). In order to improve the water quality of the Mystic River and Alewife Brook, the Town is installing green infiltration infrastructure, such as rain gardens and infiltration trenches. Rain gardens and infiltration trenches have been constructed in East Arlington to filter pollutants out of stormwater before stormwater discharges to the Mystic River and Alewife Brook.

This work is managed by DPW and funded through Coastal Pollutant Remediation Grants from the Office of Coastal Zone Management (CZM). In 2020, a CZM grant was awarded with the partnership of the Mystic River Watershed Association (MyRWA) and the Town of Lexington. The grant will fund the construction of more than 20 infiltration trenches in East Arlington. The trenches will reduce the amount of pollutants

entering Alewife Brook and the Mystic River, improving compliance with the state stormwater permit. This grant expands on another CZM grant awarded to Arlington and MyRWA in 2019, through which two rain gardens and twenty trenches were constructed in East Arlington in 2020.





Two rain gardens were constructed at the Herbert Road/Milton Street intersection in 2020.

The Water Bodies Working Group has collected information for all the water bodies evaluated in support of this report. The Conservation Commission recommends that other locations that have not been identified above as a priority for current Town Water Bodies funding should continue to be monitored, and recommendations for actions and funding should be reviewed on an annual basis.

Respectfully Submitted by:

Water Bodies Working Group of the Arlington Conservation Commission:

David Kaplan Chuck Tirone David White

Approved by the Conservation Commission February 4, 2021

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1	Wate	r Bodies Pr	ogram Analysis																				
			28/2021 - EAS																				
3																							
4																							
	The p	urpose of th	is schedule is to show activity	of th	e Water B	odie	es Account	OV	er several y	/eai	rs,												
			5 year review of revenue and 6			curre	ent year pr	oje	ction, and t	he t	three												
5	years	of budget b	ased on current information ava	ailat	ole.																		
	Pleas	e note that t	he difference between fiscal ye	ears	is one day	. TI	he ending	bala	ance as of	6/30	0 each												
6	year i	s carried for	warded to the top of the subsec	quer	nt column a	as th	ne opening	j, 7/	1 balance.														
7																							
8																							
9		Water Bod	ies Account History: 5 Years	of A	Actual, Cu	rrei	nt Year Ex	pec	cted, 3 Yea	irs	of Projecte	ed											
10			·		FY15		FY16		FY17		FY18		FY19		FY20		FY21		FY22	FY23		FY24	
11		MUNIS#			Actual		Actual		Actual		Actual		Actual		Actual	Е	xpected		Budget Budget		Budget	Budget	
12																							
13			Beginning Balance - 7/1	\$	27,865	\$	58,915	\$	38,436	\$	50,110	\$	84,118	\$	112,968	\$	111,198	\$	79,535	\$	74,535	\$	75,435
15																							
16		230 4972	Revenue/Appropriation	\$	-,	\$	40,000	\$	50,000	\$	55,000		60,000		50,000	\$	45,000	\$	50,000	\$	50,000	\$	50,000
17		230 4831	Revenue/Donations	\$	1,800	\$	800	\$	1,950	\$	1,450	\$	1,800	\$	1,800								
18																							
19			Expenses - Spy Pond	\$	-	\$	(41,279)	\$	(15,280)	\$	(10,155)	\$	(25,450)	\$	(25,070)	\$	(17,000)	\$	(23,100)	\$	(20,000)		(17,000)
20			Spy Pond Sonar				,									\$	(30,623)					\$	(35,000)
21			Expenses - Reservoir	\$	(10,750)		(20,000)		(15,000)	\$	(15,000)		(16,500)		(16,500)		(24,840)		(24,500)		(21,500)		(21,500)
22			Expenses - Hills	\$	-	\$	-	\$	-	\$	(1,287)		(4,000)		(4,000)		(4,200)	\$	(4,400)	\$	(4,600)	\$	(4,600)
23			Expenses - McClennen			_		\$	(0.000)	\$	(10,000)		(10,000)	_	(2,000)		-	_	(5.555)	•	()		(5.555)
24		230 5299	Expenses - CC Other	\$	-	\$	-	\$	(9,996)	\$	-	\$	(5,000)	\$	(6,000)	\$	-	\$	(3,000)	\$	(3,000)	\$	(3,000)
25																							
26			Ending Balance - 6/30	\$	58,915	\$	38,436	\$	50,110	\$	84,118	\$	112,968	\$	111,198	\$	79,535	\$	74,535	\$	75,435	\$	44,335
27				_		_				_		_											
28		Reserve	for Spy Pond Sonar Treatment					\$	14,000	\$	28,000	\$	42,000	\$	56,000	\$	25,377	\$	30,377	\$	35,377	\$	5,377
29			, ,						,			•	,				. ,			•			
30			Net Available Fund Balance					\$	36,110	\$	56,118	\$	70,968	\$	55,198	\$	54,158	\$	44,158	\$	40,058	\$	38,958
31													•	Ė	, -	Ĺ	•	Ė			•		·
32											T	otal	Expenses	\$	(53,570)	\$	(76,663)	\$	(55,000)	\$	(49,100)	\$	(81,100)
33															. , -,		. , ,	Ė	. , , , , ,	•	. , ,		` ' '
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Water Bodies Program An Expense Detail - Actual ar	nd Projected									
The purpose of this schedul Detail - FY2019 - Budget			enditure detail that is	summarized Hills	on the precee		FY Total	Spent to date	\$\$ available	
Detail - F 12019 - Budget		Spy Pond	Reservoir	niiis	Wicciennen	Other	FT IOTAI	Spent to date	\$\$ available	
treatment/sonar - spend in treatment/reward	FY22	14000 10450					14,000 10,450	12600		
water chestnuts/hand pull		10450	15000				15,000	15000		
algae treatment	// lilla Dand	5000	4500	4000			5,000	4720		
water quality testing/plant id spy permitting	/HIIIS PONG	10000	1500	4000			15,500	1730		
McClennen detention basin					10,000		10,000	10,000		
ConsCom - other water bod Total	ies	\$ 39,450	\$ 16,500	\$ 4,000	\$ 10,000	\$ 5,000	5,000 \$ 74,950	3,495 \$ 42,825	<u> </u>	
Total		39,430	<u>φ 10,500</u>	<del>y</del> 4,000	<u>a</u> 10,000	ψ 3,000	<u>₩</u> 74,850	ψ 42,023	Ψ -	
Detail - FY2020 - Budget		Monitoring/Analysis	Management Plan		Other		FY Total	Spent to date	Available	
Spy Pond	12,000		3,500	1,500		herbicide	17,000	19,070	(2,070)	
						treatments, surveys, management plan,				
						report				
Reservoir	15,000			1,500		mechanical	16,500	16,000	500	
	.,			,,,,,		treatments (half		.,		
						pond), survey, report				
Hill's	2,500			1,500		herbicide	4,000	3,617	383	
						treatments, algae				
McClennen		2,000				treatments, report flocculation	2,000	895	1,105	
		_,,500				monitoring and	_,0		.,	
Sonar (spend in FY22)	14,000					analysis hold for Spy Pond	14,000		14.000	
						FY22			,	
Other	5,000				10,000	Spy Pond algae	15,000	6,000	9,000	
TOTALS	\$48,500.00	\$ 2,000.00	\$ 3,500.00	\$ 4,500.00	\$10,000.00	treatments	\$68,500.00	\$ 45,581.71	\$22,918.29	
				, , , , , , , , ,						
	Treatment	Monitoring/Analysis	Management Plan		Other		FY Total	Spent to date	Available	
Spy Pond Reservoir	12,000 20,000	3,500	10,000	1,500 1,500		treatments, report mechanical	17,000 31,500	5,700 24,840	11,300 6,660	
	.,		,,,,,,	,,,,,		treatments (full		,	.,	
						pond), survey, management plan,				
						report				
Hill's	2,700			1,500		herbicide	4,200	2,753.15	1,447	
						treatments, algae treatments, report				
McClennen		-				potential follow-up	-		-	
Sonar (spend in FY22)						hold for Spy Pond FY22, final request	-	30,623	(30,623)	
						for FY2022 Sonar				
						treatment				
Other	6,000				-	misc algae treatments, etc	6,000		6,000	
TOTALS	\$40,700.00	\$ 3,500.00	\$ 10,000.00	\$ 4,500.00	\$ -		\$58,700.00	\$ 63,916.15	\$ (5,216.15)	
Detail - FY2022 - Budget Spy Pond	Treatment 12,000	Monitoring/Analysis 9,600	Management Plan	1,500	Other	treatments, report,	FY Total 23,100	Spent to date	Available 23,100	
opy i ona		0,000				hand pulling				
Reservoir	20,000			1,500	3,000	mechanical treatments (full	24,500		24,500	
						pond), report				
Hill's	2,900			1,500		herbicide	4,400		4,400	
						treatments, algae treatments, report				
Sonar (spend in FY2025)	5,000					potential follow-up	5,000		5,000	
Other	3,000					misc algae treatments, etc	3,000		3,000	
TOTALS	\$42,900.00	\$ 9,600.00	\$ -	\$ 4,500.00	\$ 3,000.00	treatments, etc	\$60,000.00	\$ -	\$60,000.00	
Detail - FY2023 - Budget Spy Pond		Monitoring/Analysis	Management Plan	Report 1,500	Other	Comments	FY Total	Spent to date	Available 20,000	
opy ronu		-3 EMA							20.000	
	12,000	3,500				treatments, report, hand pulling	20,000			
Reservoir	20,000	3,500		1,500		hand pulling mechanical	20,000		21,500	
Reservoir		3,500				hand pulling mechanical treatments (full				
		3,500				hand pulling mechanical treatments (full pond), report herbicide				
	20,000	3,500		1,500		hand pulling mechanical treatments (full pond), report herbicide treatments, algae	21,500		21,500	
	20,000	3,500		1,500		hand pulling mechanical treatments (full pond), report herbicide	21,500		21,500	
Hill's Sonar	20,000	3,500		1,500		hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae	21,500		21,500	
Hill's Sonar Other	20,000 3,100 5,000 3,000		\$ -	1,500		hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report	21,500 4,600 5,000 3,000	\$	21,500 4,600 5,000 3,000	
Hiil's Sonar Other TOTALS	20,000 3,100 5,000 3,000 \$43,100.00	\$ 3,500.00		1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc	21,500 4,600 5,000 3,000 \$54,100.00	\$ -	21,500 4,600 5,000 3,000 \$54,100.00	
Hill's Sonar Other TOTALS Detail - FY2024 - Budget	20,000 3,100 5,000 3,000 \$43,100.00 Treatment	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments	21,500 4,600 5,000 3,000	\$ - Spent to date	21,500 4,600 5,000 3,000	
Hill's Sonar Other TOTALS Detail - FY2024 - Budget	20,000 3,100 5,000 3,000 \$43,100.00	\$ 3,500.00		1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc	21,500 4,600 5,000 3,000 \$54,100.00 FY Total	\$ - Spent to date	21,500 4,600 5,000 3,000 \$54,100.00 Available	
Hill's Sonar Other TOTALS Detail - FY2024 - Budget Spy Pond	20,000 3,100 5,000 3,000 \$43,100.00 Treatment	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments treatments, report, hand pulling mechanical	21,500 4,600 5,000 3,000 \$54,100.00	\$ -	21,500 4,600 5,000 3,000 \$54,100.00	
Hill's Sonar Other TOTALS Detail - FY2024 - Budget Spy Pond	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report 1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments  Treatments, report, hand pulling mechanical treatments (full treatments)	21,500 4,600 5,000 3,000 \$54,100.00  FY Total 17,000	\$ -	21,500  4,600  5,000 3,000 \$54,100.00  Available  17,000	
Sonar Other TOTALS Detail - FY2024 - Budget Spy Pond Reservoir	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report 1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments treatments, report, hand pulling mechanical	21,500 4,600 5,000 3,000 \$54,100.00 FY Total	\$ -	21,500 4,600 5,000 3,000 \$54,100.00 Available	
Sonar Other TOTALS Detail - FY2024 - Budget Spy Pond Reservoir	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000 20,000	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report 1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, algae	21,500 4,600 5,000 3,000 \$54,100.00 FY Total 17,000 21,500	\$ -	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500	
Hill's Sonar Other TOTALS Detail - FY2024 - Budget Spy Pond Reservoir Hill's	20,000  3,100  5,000 3,000  \$43,100.00  Treatment 12,000 20,000  3,100	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report 1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments  treatments, report, hand pulling mechanical treatments (full pond), report herbicide	21,500  4,600  5,000 3,000  \$\$54,100.00  FY Total  17,000  21,500	\$ - Spent to date	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget  Spy Pond  Reservoir  Hill's	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000 20,000	\$ 3,500.00  Monitoring/Analysis		1,500 1,500 \$ 4,500.00 Report 1,500	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, algae treatments, algae treatments, report misc algae	21,500 4,600 5,000 3,000 \$54,100.00 FY Total 17,000 21,500	\$ - Spent to date	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget Spy Pond  Reservoir  Hill's  Sonar Other	20,000  3,100  5,000 3,000  \$43,100.00  Treatment 12,000 20,000  3,100  5,000 3,000	\$ 3,500.00  Monitoring/Analysis 3,500	Management Plan	1,500 1,500 1,500 S 4,500.00 Report 1,500 1,500		hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc treatments, report treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, algae treatments, report	21,500  4,600  5,000 3,000  \$\$54,100.00  FY Total  17,000  21,500  4,600 5,000  3,000		21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600 5,000 3,000	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget Spy Pond  Reservoir  Hill's  Sonar Other	20,000  3,100  5,000 3,000  \$43,100.00  Treatment 12,000 20,000 3,100  5,000	\$ 3,500.00  Monitoring/Analysis	Management Plan	1,500 1,500 \$ 4,500.00 Report 1,500	\$ - Other	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, algae treatments, algae treatments, report misc algae	21,500  4,600  5,000 3,000  \$54,100.00  FY Total  17,000  21,500  4,600 5,000	\$ - Spent to date	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600 5,000	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget Spy Pond  Reservoir  Hill's  Sonar Other  TOTALS  Detail - FY2025 - Budget	20,000  3,100  5,000 3,000  \$43,100.00  Treatment 12,000 20,000  3,100  5,000 3,000	\$ 3,500.00  Monitoring/Analysis 3,500	Management Plan	1,500  1,500  \$ 4,500.00  Report  1,500  1,500  1,500  \$ 4,500.00		hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, etc  Comments treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, algae treatments, algae treatments, report misc algae	21,500  4,600  5,000 3,000  \$\$54,100.00  FY Total  17,000  21,500  4,600 5,000  3,000		21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600 5,000 3,000	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget Spy Pond  Reservoir  Hill's  Sonar Other  TOTALS  Detail - FY2025 - Budget Spy Pond	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000 20,000 3,100 5,000 3,000 \$43,100.00	\$ 3,500.00  Monitoring/Analysis 3,500  \$ 3,500.00	Management Plan	1,500  1,500  \$ 4,500.00  Report  1,500  1,500  1,500  \$ 4,500.00	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, retort treatments, retort treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, tagae treatments, report misc algae treatments, teport misc algae treatments, teport misc algae treatments, etc	21,500  4,600  5,000 3,000  \$\$54,100.00  FY Total  17,000  21,500  4,600 5,000  \$\$51,100.00	\$ -	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600 5,000 3,000 \$51,100.00	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget Spy Pond  Reservoir  Hill's  Sonar Other  TOTALS  Detail - FY2025 - Budget	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000 20,000 3,100 5,000 3,000 \$43,100.00	\$ 3,500.00  Monitoring/Analysis 3,500  \$ 3,500.00	Management Plan	1,500  1,500  \$ 4,500.00  Report  1,500  1,500  1,500  \$ 4,500.00	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, retort treatments, retort treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, tagae treatments, report misc algae treatments, teport misc algae treatments, teport misc algae treatments, etc	21,500  4,600  5,000 3,000  \$\$54,100.00  FY Total  17,000  21,500  4,600 5,000  \$\$51,100.00	\$ -	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600 5,000 3,000 \$51,100.00	
Hill's  Sonar Other  TOTALS  Detail - FY2024 - Budget Spy Pond  Reservoir  Hill's  Sonar Other  TOTALS  Detail - FY2025 - Budget Spy Pond  Reservoir	20,000 3,100 5,000 3,000 \$43,100.00  Treatment 12,000 20,000 3,100 5,000 3,000 \$43,100.00	\$ 3,500.00  Monitoring/Analysis 3,500  \$ 3,500.00	Management Plan	1,500  1,500  \$ 4,500.00  Report  1,500  1,500  1,500  \$ 4,500.00	\$ -	hand pulling mechanical treatments (full pond), report herbicide treatments, algae treatments, report misc algae treatments, retort treatments, retort treatments, report, hand pulling mechanical treatments (full pond), report herbicide treatments, tagae treatments, report misc algae treatments, teport misc algae treatments, teport misc algae treatments, etc	21,500  4,600  5,000 3,000  \$\$54,100.00  FY Total  17,000  21,500  4,600 5,000  \$\$51,100.00	\$ -	21,500  4,600  5,000 3,000  \$54,100.00  Available  17,000  21,500  4,600 5,000 3,000 \$51,100.00	



# **Draft Thorndike Place Conditions**

**Summary:** Review draft conditions for Thorndike Place.

# **ATTACHMENTS:**

	Type	File Name	Description
ם	Reference Material	ACC_Recommended_Conditions_Thorndike_Place_02012021.pd	If Draft Thorndike Place Conditions



MASSACHUSETTS

# CONSERVATION COMMISSION

February 1, 2021

Zoning Board of Appeals Town of Arlington 730 Massachusetts Avenue Arlington, MA 02474

RE: Thorndike Place – Application for Comprehensive Permit
Draft Recommended Permit Conditions

Dear Chairman Klein and Members of the Board:

The Arlington Conservation Commission (ACC) provides this draft of recommended conditions regarding wetlands and stormwater management for the Thorndike Place Comprehensive Permit. These draft recommended conditions reflect the comments summarized in the five letters the ACC has submitted to the ZBA in response to the Thorndike Place Proposal. These comment letters are dated July 9, 2020, October 9, 2020, November 20, 2020, December 8, 2020, and December 18, 2020. The ACC may provide subsequent edits or changes to these draft conditions based on additional information presented at permit hearings.

The Conservation Commission urges the ZBA not to grant any waivers requested by the Applicant from the Town's Wetlands Protection Bylaw (Bylaw) and Regulations for Wetlands Protection (Regulations) as these provide flood control, storm damage prevention, wildlife and habitat preservation, and other interests of local concern.

We hope the ZBA finds the enclosed list of recommended conditions helpful. Please contact us should you have questions.

Very truly yours,

Susan

Susan Chapnick, Chair Arlington Conservation Commission

#### **General Conditions**

No uncovered stockpiling of materials shall be permitted within the 100 foot Wetland Buffer Zone or Adjacent Upland Resource Areas ("AURA") or other Resource Areas.

No dumpsters shall be allowed within the 100 foot Buffer Zone or AURA or other Resource Areas.

No heavy equipment may be stored overnight within 50 feet of resource areas and no refueling or maintenance of machinery shall be allowed within the 100-foot Buffer Zone, AURA, or within any Resource Area.

Any dirt or debris spilled or tracked onto any paved streets shall be swept up and removed daily.

Any water discharged as part of any dewatering operation shall be passed through filters, on-site settling basins, settling tank trucks, or other devices to ensure that no observable sediments or pollutants are carried into any Resource Area, street, drain, or adjacent property. Any catch basins, drains, and outfalls to be used in dewatering operations shall be cleaned out before operations begin.

The Applicant shall work with the Arlington Conservation Commission and Arlington Land Trust to create a Conservation Restriction (CR) for the undeveloped 12 acres of the property to protect the open space in perpetuity. The CR shall include a restoration plan for the entirety of the protected open space, and detail invasive management and native planting strategies.

The Applicant must hire a qualified environmental monitor to be on-site during project construction. The monitor shall submit an electronic report to the ZBA weekly regarding construction progress and relation to resource areas. During the duration of construction and mitigation plantings or other activities permitted, the qualified environmental monitor shall also submit an electronic report after every rain event exceeding 0.5 inches of rain in a 24-hour period to the ZBA regarding the condition of the site during and after the rain event, as well as the status of erosion controls and any additional measures to address stormwater management issues caused by said rain event.

#### **Stormwater Management Conditions**

The Applicant will provide design detail confirming that the rooftop detention system will conform to the runoff assumptions and calculations used in the Stormwater Analysis.

The Applicant shall provide thorough documentation establishing seasonal high groundwater elevations at the site to ensure that there is a minimum of a two foot separation between the bottom of the stormwater management infiltration chambers

and the seasonal high groundwater table. The design of the field data collection program to be conducted in March or April 2021, including location and number of test pits and wells, shall be submitted to the ZBA for approval. After site specific field data collection by a competent professional, the Frimpter Method or other methodology acceptable to Arlington shall be used to compare data to USGS data for nearby groundwater monitoring wells.

The Applicant shall use the NOAA Atlas 14+ data to recalculate the stormwater calculations and make appropriate changes to the proposed stormwater system's design to accommodate additional precipitation.

The Applicant must hire a qualified stormwater monitor or engineer to oversee the installation of the stormwater management system. The qualified stormwater monitor shall be a certified engineer. A stormwater mitigation report must be submitted to the ZBA within 10 days of the completion of the stormwater management system. The stormwater report shall include as-built plans, photographs from installation, and a written summary of the installation of the stormwater management system and stormwater best management practices (porous pavement, rain gardens, etc.).

To avoid adding excess nitrogen runoff, the Applicant shall only treat the planted areas within resource areas with slow release nitrogen fertilizer. Application of this fertilizer cannot occur in the summer, or after storm events. Lawn fertilizer shall only be applied twice a year, in spring and fall. The application of plant nutrients shall otherwise comply with 330 CMR 31.00. No other herbicides or treatment methods are approved. No pesticides or rodenticides shall be used to treat pest management issues within resource areas. These shall be continuing conditions in perpetuity that survives the expiration of this permit.

Pervious surfaces shown on the project plans shall be maintained and not be replaced by impervious surfaces. This shall be a continuing condition in perpetuity that survives the expiration of this permit.

No snow storage is permitted within 100-feet of resource areas. This shall be a continuing condition in perpetuity that survives the expiration of this permit.

The Applicant shall protect all adjacent catch basins using silt socks during construction.

The Applicant shall conduct catch basin sump cleanings at the end of the project work period.

# Floodplain Management

The Applicant shall provide a minimum ratio of 2:1 cubic feet of compensatory flood storage. Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at

each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project.

### **Landscape Conditions**

The Applicant shall submit a detailed landscape plan identifying all trees proposed for removal that are within the AURA and other resource areas. The plan shall identify the species, quantity, and size in diameter at breast height (DBH) of the trees proposed for removal. The quantity and size of replacement trees shall adhere to the standards set forth by Section 24: Vegetation Removal and Replacement of the Arlington Regulations for Wetlands Protection (2015). The landscape plan shall also identify the species and quantities of other vegetation proposed onsite (including Latin and common names, size of each plant, quantity of each species).

The Applicant shall submit for review by the ZBA a restoration plan for the proposed compensatory flood storage area of the site to mitigate for the negative environmental impacts of the vegetation removal and grading to create the compensatory flood storage area.

The Applicant shall submit for review and approval by the ZBA an invasive management plan for work in the AURA and other resource areas outlining all locations for invasive management, the species and quantities of invasive plants to be managed, and the method of management.

All mitigation plantings and all plantings within resource areas shall be native, and be installed and maintained according to the standards of the American Association of Nurserymen (AAN). No cultivars of native plantings shall be allowed. This shall be a continuing condition in perpetuity that survives the expiration of this permit.

All plantings planted and invasive species removed through this project shall be monitored for three years. A survival rate of 100% must be maintained for the approved plantings at the end of the third monitoring year. If there is less than a 100% survival rate of the plantings after the third year, the Applicant must submit recommendations for replacements to the ZBA for approval. A monitoring report shall be submitted annually in June for the three year monitoring period, reporting on the health of the new plantings and the success of the invasive plant management.

# Work Proposed in the AURA

The AURA to all resource areas on site shall be protected as follows: No work is allowed within 25 feet of the resource area; No disturbance is allowed within 50 feet of the resource area; limited activity only is allowed within 50 to 75 feet of the resource area; and mitigation must be provided for any disturbances of the 50 to 100 feet area of the AURA. Definitions of "work," "disturbance," "limited activity," and "mitigation" are as defined in the Arlington Regulations for Wetlands Protection (2015), Sections 4 and 25.



# Regulation Update

Summary:

Regulations Update: Full Draft